

## ABSTRACT OF THE DISCLOSURE

### Optical Band Scanning Monitor System and Method

A scanning optical monitoring system and method are appropriate for high speed scanning of a WDM signal band. The system and method are able to identify dropped channels or, more generally, discrepancies between the determined or detected channel inventory and a perpetual inventory for the WDM signal, which perpetual inventory specifies the channels that should be present in the WDM signal assuming proper operation of the network. The system includes a tunable optical filter that scans a pass band across a signal band of a WDM signal to generate a filtered signal. A photodetector then generates an electrical signal in response to this filtered signal. A decision circuit compares the electrical signal to a threshold and a controller, which is responsive to the decision circuit, inventories the channels in the WDM signal.